In 1764, Pierre Laclede's party lands on the future site of the city of St. Louis. The painting, from the Missouri Historical Society collection is attributed to August Becker, after a painting by his half-brother, Carl Wimar. Herb Weitman's photographic studies of the historic site begin on page 28.
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COVER: Detail of the facade of George F. McMillen Laboratory was used by designer Stan Gellman to express the new atmosphere of the north side of the main campus. See “Northside Story,” beginning on page 16.

Photo credits: pages 2-9, 33, Richard N. Levine; page 27, Clara Gutsche; page 40, Gail Cissna; all others by Herb Weitman.

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Prelaunch preparations. Above: the two-ton cosmic ray detector in foreground, balloon beginning to inflate in left background.

Bottom, from left: Jack Tueller, John Epstein, and Pat Love make last-minute inspections and calculations.
TWO-TON COSMIC RAY DETECTOR

THE drably wrapped object hanging from the crane shown in the photograph to the left certainly doesn't begin to reflect the three years of planning, engineering, and sweat that Washington University space scientists put into building the cosmic ray detector, hidden by four inches of building insulation. The two-ton detector was twice lifted some twenty-two miles to the outer edges of the earth's atmosphere last fall by helium-filled polyethylene balloons (about 440 feet in diameter when fully inflated). It was the largest electronic cosmic ray detector ever launched in a high altitude balloon flight. In its two flights from the launching facility at Sioux Falls, South Dakota, the complex but, as it turned out, very durable detector suffered two rough landings.

The first launch nearly ended in disaster when it came down heavily with two tons of a burst polyethylene balloon on top of it—after only one and a half hours of flight time. Then a successful launch took place October 1, following days of frenzied but ingenious repair work. This time the balloon carried the detector to its optimum float altitude of 120,000 feet, at which it travelled eastward for thirty-two hours, landing near Fond du Lac, Wisconsin, in a rather dramatic fashion. But a reasonably rich bank of data on cosmic rays was recorded, and for the first time in three years the small group of scientists breathed a large, collective sigh of relief. Before that wonderful moment, the perils of the launches made them wonder why they had been so brash as to undertake such an ambitious and pioneering project.

The principal figures in the experiment are John Epstein, project engineer, and two graduate students, Patrick Love and John Tueller, who are basing their doctoral theses on the project and the current analysis of their cosmic ray data. The engineering breakthrough was provided by Epstein, who in 1972 convinced physicists in the University's McDonnell Center for the Space Sciences that the two-ton, ten-square meter detector could be built entirely within the center on a meager budget. Knowing that the engineering and construction were feasible, Love and Tueller then made the commitment to base their doctoral dissertations on the scientific facets of the experiment. Epstein, Love, Tueller, and at various times other members of the center, worked a steady schedule of six-day weeks at fourteen hours per day. It was a commitment worth making because their line of experimentation had reached a point where, in order to move to a new, more precise level of our understanding of cosmic rays, larger detectors had to be built. Someone had to prove it could be done; but the principal goal of all of the space scientists involved in the project is to glean from cosmic rays better clues to understanding the processes that take place in exploding stars through which many of the chemical elements in our solar system are formed.
COSMIC ray studies at Washington University began under the late Arthur H. Compton, former Chancellor and physics department chairman, who in those early days of experimentation was quoted as saying about cosmic rays, “It is up to each of us to learn to read their messages from interstellar space.” Cosmic rays are the earth’s only material contact with interstellar space. They are the nuclei of atoms that travel through our galaxy near the speed of light. Fortunately for life on earth, the earth’s upper atmosphere absorbs essentially all of the cosmic rays whose journeys over millions of light years end when they split the nuclei of atoms in the outermost layers of air. They produce secondary radiation which penetrates to sea level and is part of the natural radioactivity to which life has adapted. Only a minute fraction of cosmic rays come from the sun. It is theorized that the rest originate from exploding stars called supernovae. One theory, held by a majority of space scientists, is that supernova explosions led ultimately to the creation of many of the heavy elements in our own solar system. According to this theory even the heaviest nuclei, such as uranium and thorium, were distributed in interstellar space from these gigantic explosions which mark the death of large stars. Most of us have seen the spectacular remnants of one frequently photographed supernova—the Crab Nebula, first sighted by Chinese astronomers in 1054 (on an average, two or three supernova explosions take place each century in our galaxy). Products of supernova explosions, it is speculated, have clumped with lighter nuclei in the interstellar gas which subsequently condensed into our sun and its planetary system. Findings from the Washington University’s October balloon flight should provide more definitive data about the composition of cosmic rays. Theorists then, by studying subsequent experiments here and elsewhere, may be able to clarify the processes that take place during and after supernova explosions.
After being dragged across the field, the detector came to rest when the parachute entangled in a clump of trees.

Cosmic ray detector is carried at about twenty miles per hour toward abandoned farmhouse. The detector landed in the field at the lower left, but the parachute failed to release after impact.
The photographs at the left give some indication of very tense moments before the conclusion of the University's successful October 1 launching of the cosmic ray detector. The recovery crew in the plane over the farm shown in the picture watched helplessly after the detector's parachute, which had brought it to a soft landing in a nearby cornfield, failed to release from the two-ton detector. Heavy winds then blew the parachute, dragging the detector across the railroad tracks. The debris shown along the tracks is from the breaking up of the detector's insulation. The parachute headed for the unoccupied farmhouse in the upper right corner of the picture, finally coming to rest on top of two junk automobiles. By the time Epstein and Love and other members of the recovery crew arrived at the scene (Tueller had remained in Sioux Falls to monitor the telemetry signals), a fairly good-sized crowd had gathered. Naturally everyone in the recovery crew was delighted to find that the damage to the detection equipment did not affect the data that had been recorded. It isn't unusual in detector recoveries that the spectators share in the researchers' good (or bad) fortune, asking many questions and assisting in loading the equipment onto recovery trucks. But what of the owner of the farmhouse in this case? He might have objected to all the turmoil on his property, although there was no damage to his house. He ended up being as delighted as Epstein, Love, and Tueller. All of the local publicity about the detector's landing on his farm was just what he needed to ensure a good turnout for an auction of his property scheduled for the following day.
After three years of discussion, designing, building, and then living through the rigors and frustrations of last fall's launchings, the cosmic ray research group in the University's McDonnell Center for the Space Sciences has the formidable task of analyzing about one million separate cosmic ray events picked up by their detector on its thirty-two hour voyage. Of course, they were aware that a successful launch would yield this massive array of data, and that it would be virtually impossible to conduct an analysis without the use of computers. To give a rough idea of the complexity of the detection equipment alone: the "detector" actually is two identical detection devices made up of ionization chambers and Cerenkov counters which measure the charge of the individual cosmic rays and the speed at which they travel through the detector. This information was simultaneously recorded on magnetic tape in a small computer located beneath the detection equipment. The tape is now being fed into a larger computer which will sort out the species of cosmic rays.

The prime goal of launching ten square meters of detection equipment was to enhance chances of capturing ultraheavy cosmic rays, from zinc, atomic number 30, on up the atomic scale. There is very little precise information about the composition of these very rare heavy cosmic rays; earlier measurements, including research by University physicists Michael Friedlander, Joseph Klarmann and Robert Walker, have given coarse indications of their abundances. A key advantage of the new detection equipment is that it will reveal whether a cosmic ray is precisely of atomic charge 38, rather than, say, "between charges 35 and 40"—the resolution capacity of older detectors. The secondary goal of the experiment is to obtain more precise data on the composition of lighter cosmic rays, from silicon to zinc nuclei.

Two months after the detector left the University for Sioux Falls, it was returned to the campus. Shown here are two twin detector systems being examined by Pat Love.

Physics professors Martin Israel, at right, and Joseph Klarmann, faculty advisers on the project, used computer systems in the McDonnell Center for the Space Sciences to analyze data from the first, abbreviated flight. Their check revealed that the detector had functioned properly.
Charles Leven is a globe-trotting professor who specializes in a subject Adam Smith never dreamed of—urban and regional economics. Considered one of a handful of the best such economists in the world, he has developed a method for keeping regional accounts which is regarded as a major contribution to regional and general economic planning.

The latest edition of Who’s Who in America contains an entry on LEVEN, CHARLES LOUIS, educator. Unlike a great many other invited contributors to this prestigious directory, however, Washington University economist Leven chose to conclude his capsule biography with a pithy philosophical statement, an option only recently proffered by the directory’s cautious editors. It reads: “Achievement is satisfying but especially so when one can win without others losing. At the same time, it appears unnecessary to be a failure to prove one’s sincerity.”

It is typical of Professor Leven that he should have elected to include the statement, for he is given to punctuating his conversations with such bon mots, which enliven his discourses on the complexities of economics, sometimes called the “dismal science” by the irreverent. Seldom, however, are these Leveties delivered without expansive elaboration, for Professor Leven is not known for his reticence. Like Aesop, he is noted for his ability to make a point with a pertinent story, a gift which makes him a superb teacher, according to colleagues. Dr. Leven has also achieved a certain amount of fame for his prodigious memory, which makes him a formidable foe in a trivia quiz. At a party, he can, and sometimes will, recall that “Whatever Will Be, Will Be” won an Oscar as the best song in a 1956 movie, and that Hank Aaron played center field for Milwaukee in the 1957 World Series.

A bouncy, buoyant man with a Puckish sense of humor, he gives the impression of being casual, relaxed, and free-wheeling—the kind of a fellow who always talks to strangers. But beneath the facade, as more than one perceptive colleague has commented, is a disciplined scholar who is extremely responsible and well organized. Perhaps these are the qualities which prompt Professor Leven to characterize himself as “Victorian,” an appellation that confounds even some of his closest friends, who describe him variously as “brash,” “convivial,” “a stout Fred Astaire,” or “a happy realist.”

Regardless of how they view him personally, however, they all agree that he is a pioneer in a comparatively new subdiscipline called regional economics. The great giant in this field, Walter Isard, who persuaded Professor Leven to join his Regional Science Department at the University of Pennsylvania for a few years, confirms that fact, and adds that he considers him “one of the topnotch, handful of scholars regarded as the best regional economists in the world.”

Because of his recognized leadership in this field, Dr. Leven is much sought after as a consultant by governmental agencies, United Nations organizations, and by private firms such as Planning and Development Collaborative International (PADCO) in Washington, D.C. Such responsibilities
require him to be as peripatetic as Gulliver, as his peregrinations take him all over this country and abroad to such disparate places as Madrid, Karachi, Sao Paulo, and a covey of Israeli cities. Dr. Leven, according to his friend, the writer Robert B. Read, likes to think of himself as an accomplished linguist, "but he actually has a tin ear for foreign languages." On his travels, Dr. Leven seldom takes a tuxedo, but he did, for a very long time, carry a Polish raincoat with its label always carefully in view until it became a tattered rag. Said Read: "I think he wanted everyone to know that he had bought the coat in Warsaw, but I suspect that most people just thought that he was Polish. These amusing peccadilloes," Read concluded, "make him no less lovable and engaging."

Despite his international reputation, however, Dr. Leven was astounded last spring when a letter arrived from Gene M. Gressley, director of archives and contemporary history at the University of Wyoming, requesting that he deposit all his papers there. Others so honored include Ada Louise Huxtable, the noted architectural critic of The New York Times, and Oskar Stonorov, the well-known city planner, architect, and sculptor. Puzzled as to why he was included among the chosen few, Dr. Leven finally concluded that it was because his files could provide information on what he envisions may come to be known fifty years from now as the new discipline of urbanology. When queried directly about the matter recently, Gressley himself responded with what he implied should be obvious. "Everybody knows of Leven's work," he said with authority.

In short, Dr. Leven has arrived, but he has taken a rather circuitous route to get where he is. As an undergraduate, he had no idea what he wanted to be, with the result that he switched majors even more frequently than he did schools. Finally, in 1950, he graduated with honors in mathematics and a minor in economics from Northwestern University, after having abandoned his rather half-hearted efforts to become a chemical engineer at the Illinois Institute of Technology and at the University of Illinois. When, at graduation time, he was offered an opportunity to study for a doctorate in economics at Massachusetts Institute of Technology, he disdainfully turned it down, because the whole idea of attending "another cockamamie engineering school" and becoming a college professor seemed to him absurdly unrealistic. "I just wanted to have an apartment in Roger's Park (a north Chicago neighborhood) and be able to walk tall on Morse Avenue," he explained with a chuckle.

For some months he was thwarted in his pursuit of what he thought would be idyllic happiness by a major obstacle. He couldn't find employment. Eventually, however, he was hired as a research assistant at the Federal Reserve Bank of Chicago. It did not take him long to realize that his was not a dream job. "I was an underling there," he confided. Dissatisfied with his meager salary and his lowly status, he decided that to achieve his ambition he would have to acquire a master's degree in economics so that he "could get out in the world and really do it."

Taking advantage of the bank's policy of encouraging employees to continue their education by subsidizing their evening courses at the American Institute of Banking, Dr. Leven somehow persuaded his employers to finance his graduate courses at Northwestern University. Year after year, Dr. Leven resolutely pursued his studies until it suddenly dawned on him that he had accumulated almost enough credits for the doctorate he had once scorned. Now, it seemed like something he had always wanted, but a requirement of a year's full-time residence stood between him and his goal. Providentially, he was awarded both a Social Science Research Council Fellowship and a Ford Foundation Dissertation Fellowship, which enabled him to take a year's leave of absence from the bank. Secretly, he resolved never to return to the Federal Reserve, and settled down in 1956 to what he assumed would be a less hectic schedule of reading, writing, and research.

"Achievement is satisfying but especially so when one can win without others losing. At the same time, it appears unnecessary to be a failure to prove one's sincerity."

The leisurely period which he had looked forward to did not last long. Instead, the tempo of his life became even more hectic in February, 1957, when he accepted a faculty appointment at Iowa State University of Science and Technology for the following fall. Erroneously assuming that he would lose the job if he did not complete his dissertation by that September, Dr. Leven toiled feverishly to finish his paper. "I completed my dissertation on July 4, sat down to type the paper, and on August 13 turned in the finished manuscript. On the fourteenth, my first daughter, Carol, was born, on the twenty-ninth I passed my final exam, and on the thirty-first of August I left for Ames and my first teaching job," he recalled recently.

Fortunately, plodding along at a conventional pace is not
the Leven style; working rapidly is. Lively and quick-witted, he seems always to be in a hurry, and he generally is. Even his speech reflects his natural impatience. Words tumble out with a kind of staccato exuberance and sentences telescope together in Leven's eagerness to express the profusion of thoughts and ideas which zip through his mind.

Two factors—Dr. Leven's ability to maintain his rugged pace under pressure and his capacity to utilize much of the research he had done while at the "Fed"—enabled him to meet his dissertation deadline successfully. His doctoral paper, "Theory and Method of Income Accounts for Metropolital Areas," reflected his intense interest in regional economics, a specialty to which he had been introduced while at the bank.

It was because of the intervention of Isard himself some time earlier that Dr. Leven and others within the Federal Reserve System were urged to turn their attention to this new subject. "The big papa in the sky," as Dr. Leven is fond of calling this renowned expert on regional economics, had convinced the decision-makers at the "Fed" of the importance of collecting and analyzing information related to this field.

Reminiscing about those days recently in his spacious Washington Square office, Dick Netzer, now dean of the Graduate School of Public Administration at New York University but at that time a contemporary of Dr. Leven's at the "Fed's" Chicago branch, described what it was like to have become immersed in this new facet of economics. "We were alone, absolutely alone," Dean Netzer recalled. "At that time you could count the number of regional economics studies which had been done on the fingers of one hand." Precisely because there was no body of literature nor established tradition on which to build, the task of charting such a new course in economics, a discipline that the critical Isard once described as a "wonderland of no dimensions," was not easy.

Since then, regional economics has come of age, but even today there is controversy over how precisely to define it. John F. Kain and John R. Meyer, in the introduction to their book Essays in Regional Economics, state: "Regional Economics, like most applied fields in economics, is concerned with the application of the tools of economic analysis to a particular class of policy problems. The central issue of regional economics is understanding the processes of economic growth in a geographical area which is a subdivision of a larger national economy." Edgar M. Hoover, a pioneer in the field, put it more succinctly in his book An Introduction to Regional Economics. He said: "Regional or 'spatial' economics can be summed up in the question 'What is where, and why—and so what?' "

Closely related to regional economics is urban economics. Urban economics is also concerned with spatial outcome, but in an even more distinctive way. According to Dr. Leven, the core considerations of urban economics are: "Who gets to live next door to whom; who has to bear what burden of moving goods or people, and who gets what kind of public services at what price?"

When they were just getting started in this field, however, the team of Leven and Netzer was totally unconcerned with such subtle distinctions. Instead, they were trying to figure out what effect external trade had on a specific geographic area. "In Growth and Stability in Five Midwestern Cities (Decatur, Fort Wayne, Flint, Madison, and Waterloo), we set up a kind of embryonic economic model in order to analyze the prospects for the growth of these places," Dr. Leven explained.

He tackled the same job in a non-embryonic way in his dissertation. What he did was to work out an analytical framework for determining the effect of all imports and exports, both foreign and domestic, on the growth of Elgin, Illinois. In this study, instead of just coming up with sketchy, rough estimates, Dr. Leven devised a system for gathering data on a specific place using very detailed and precise procedures. The formula which he used for Elgin was structured so that it was applicable to other metropolitan areas. "And that's how I became famous," Dr. Leven observed facetiously.

Actually, Dr. Leven's rise to prominence in the economics profession was not quite so meteoric. Subsequent papers which he delivered in New York at a meeting of the Americ-
can Institute of Planners and in Miami at the first gathering of the Committee on Regional Accounts did even more to enhance his reputation. In the latter study, particularly, Dr. Leven worked out what he called "an elegantly constructed system of regional accounts for Sioux City. I am sure I am more professionally known for this paper than for anything else I have ever done," he confided. "It was this paper which established me as the inventor of a system of regional accounts which was considered the model to study by anyone wanting to set up an economic accounting analysis system for a metropolitan region."

"The core considerations of urban economics are: 'Who gets to live next door to whom; who has to bear what burden of moving goods or people, and who gets what kind of public services at what price.'"

Just why Dr. Leven's regional accounting system had far-reaching impact in economic circles becomes easier to understand when one puts his work in proper perspective. Werner Hochwald, Tileston Professor of Political Economy, did that recently as he reconstructed the development of economic thought in this country over some forty or more years. He pointed out that the very idea of keeping national income accounts after which regional accounts are patterned in many ways did not develop until the Great Depression. Once the federal government adopted such procedures in the thirties, it was possible to determine the gross national product and a variety of other useful economic indicators which we take for granted today. Dr. Leven's regional accounts system provided a clearer understanding of what the flows are between various industries within a region and how these affect final output. With these techniques, it, in turn, became possible to estimate the needs for various kinds of labor, capital, energy, and other essentials related to the growth of specific regions. Thus, as Economics Professor James T. Little, another colleague, summed it up: "These efforts made a significant contribution to regional and general economic planning."

Dr. Leven, of course, was not the only one interested in these regional economic problems. There were others, including Charles Tiebout, a fledgling instructor at Northwestern who was struggling to complete his own dissertation at the same time that Dr. Leven was engrossed in his. Young Tiebout did a pioneering analysis of the effect of international trade on Ann Arbor, and later a widely discussed multi-regional California study. They complemented each other in temperament, and remained close friends until Dr. Tiebout died prematurely of a heart attack at the age of forty-three in 1968. Within the economics profession they were known as West Charlie (Tiebout taught at UCLA) and East Charlie and together "they could be as funny as any vaudeville team," Professor Edward Greenberg of the economics department, recalled.

Tiebout, Isard, and Harvey Perloff, another well-known economist, "were all major influences in my life," Dr. Leven explained. Dr. Perloff was for many years director of Resources for the Future and is now dean of the School of Architecture and City Planning at UCLA. He added another dimension to Dr. Leven's work by suggesting that they analyze the relationship between what economists call flows (goods and services, for example, in a region) to its stocks (entities such as factories and roads). Their joint study was published in 1964.

It set forth broad, general concepts, Dr. Leven explained, but made no effort to describe how to construct a specific system for this purpose. "Later, we decided what we needed was a sort of book of principles on how to do it. This text would deal with what we thought were the real economic issues." Published by MIT Press in 1970 by Leven, John Legler, and Perry Shapiro (all associated with Washington University at the time), this book, An Analytical Framework for Regional Development Policy, was funded by Resources for the Future. A number of other economists, including Netzer, Karl Fox of Iowa State, and Harold Barnett of this University, helped shape it.

"It was this paper which established me as the inventor of a system of regional accounts which was considered the model to study by anyone wanting to set up an economic accounting analysis system for a metropolitan area."

Dr. Leven began working on this text in 1965, the year he joined the Washington University faculty as professor of economics, chairman of the faculty of Urban and Regional Science, and director of the Institute of Urban and Regional
"The Institute is problem-oriented. It has been engaged in what could be called applied research. Its aim has been to enable decision-makers to adopt wiser policies by improving their basic understanding of some process or policy."

Studies. He came from the University of Pittsburgh, where he had taught for three years after having been at Isard's home base, the University of Pennsylvania, from 1959-1962 and at Iowa State from 1957-59.

Having been associated with the growth and development of regional economics for more than two decades now, Dr. Leven likes to trace its origins and to talk philosophically about its goals. Historically, regional economics is related to location studies first done by Johann Heinrich von Thünen, a German, in the eighteen thirties. "His was an obscure piece of economics which nobody paid any attention to for some fifty years," Dr. Leven explained. Twentieth-century writers on this theme include Alfred Weber, Alfred Lösch, and Edgar M. Hoover, who published his doctoral dissertation, "Location Theory in the Shoe and Leather Industry," while at Harvard in the mid-nineteen thirties.

Regional economics also is rooted in theoretical work done by Nobel Prize winners Wassily Leontief of Harvard (1973) and a pair of economists who shared the award, Leonid V. Kantorovich of the Moscow Institute of Management and Dutch-born Tjalling C. Koopmans of Yale (1975). Their work, coupled with contributions from the mathematician George Dantzig of Stanford University, resulted in the development of linear models which are really simplified versions of the way production processes work. This research, merged with systems of national accounts devised by still another Nobel Laureate, Simon Kuznets of Harvard (1971), has had far-reaching impact on economists concerned with locational and regional problems.

During the past few decades, members of the University's Institute of Urban and Regional Studies, headed by Dr. Leven, have concentrated on a variety of such problems. Since last summer when Dr. Leven was named chairman of the Department of Economics, he has had to leave the daily management of the Institute to Associate Director Little, but he still retains his formal ties with it. The Institute has had a proud record. Over the years it has prepared cogent papers for a number of diverse groups, including the Institute for Water Resources Division of the United States Corps of Engineers and the U.S. Department of Housing and Urban Development. It is impossible to describe all of its accomplishments here, but its purpose can be summarized. As Dr. Leven expressed it, "The Institute is problem-oriented. It has been engaged in what could be called applied basic research. Its aim has been to enable decision-makers to adopt wiser policies by improving their basic understanding of some process or policy."

Has the work of the Institute had a significant impact on the bureaucrats who sought its services? Dr. Leven responded by recalling a Latin motto inscribed on the flyleaf of nineteenth-century economist Alfred Marshall's Principles of Economics. It reads: Natura non facit saltum. "Nature does not make leaps." "In other words," Dr. Leven explained, "I don't look for validation of our impact in a visible redirection of the world." He added: "It's a great mistake to think that research in economics is concerned only with building mechanisms that work. What it is really doing is changing men's minds. You say, does it do any good? I live with the reality that I can never know for sure."

As a further amplification of his answer, he referred to a novel which is a favorite of his. Written by a Czech, Jaroslav Hasek, it is called The Adventures of the Good Soldier Schweik. Schweik is dedicated to doing the best he can as a simple private in a World War I Czech regiment to frustrate the Austrian attack. But, to be effective, Schweik must conceal his efforts. He can never claim credit. That is his secret. Schweik appears to lose, but in reality he wins. "The important part of the book is to understand that he wins, but his real sacrifice is that he really, in a literal sense, has to give of himself," Dr. Leven concluded. He told the story to illustrate that it is not always possible to receive full credit for one's efforts. Nor is it necessary. Natura non facit saltum. "Men's minds don't change fast," concluded the economics department's philosopher-in-residence, Charlie Leven.

"It's a great mistake to think that research in economics is concerned only with building mechanisms that work. What it is really doing is changing men's minds."
Twenty years ago, the north road traversing Washington University's campus east and west from Brookings to Wilson Pool led to parking lots and the back of Fraternity Row. Today it is lined on the south with handsome, modern buildings, housing classrooms, laboratories, and offices. The east end is devoted to science and engineering; the west end to social studies and law. In future years, the University's major expansion is planned for the north side of the road facing on Millbrook Boulevard. The buildings form small new quadrangles among themselves and older structures up the hillside to the south. At two points, the open spaces between have created pleasant new campus entrances from the bus stops, walkways, and parking lots to the north.

The Arthur Holly Compton Laboratory of Physics, named for the former chancellor and Nobel laureate, was first occupied in 1965. Among its tenants today are the McDonnell Center for the Space Sciences, the McDonnell Laboratory for Space Physics, Gustavus A. Pfeiffer Physics Library, physics classrooms, laboratories, conference rooms, and offices.
Urbauer Hall, named in memory of Hugo F. Urbauer and his wife, Ina Champ Urbauer, is an engineering laboratory building at the north end of a small quadrangle with Sever Institute of Technology. It was completed in 1959 and today houses the Departments of Chemical and Civil Engineering, the Program in Technology and Human Affairs, and laboratories and offices.
Bryan Hall is the newest of the engineering buildings. Occupied by the Departments of Computer Science and Mechanical Engineering and other laboratories and services, the building has been in use since 1969. It is named in memory of Charles W. Bryan, Jr., and his father, Charles Bryan, Sr., both graduates of the Engineering School.
The George F. McMillen Laboratory, a companion building to the west of Bryan Hall, is the new home of undergraduate and graduate chemistry laboratories, offices, classrooms, a seminar room, and chemistry department offices. Bryan and McMillen are connected by a bridge-lounge named for I. E. Millstone and used by both engineers and chemists. McMillen Laboratory has been in use since spring, 1969.
Completed in 1971 and dedicated later as a tribute to former chancellor Thomas H. Eliot, a social scientist and lawyer, Eliot Hall and Mudd Law Building share a prominent courtyard from which each opens. Eliot houses offices, classrooms, and a lounge for the Social Sciences and is the home of the Departments of Economics and Political Science and the new Center for the Study of American Business.
The Seeley G. Mudd Law Building, dedicated in spring, 1972, and occupied the previous fall, completely houses the University's School of Law. Its Eugene A. and Adlyne Freund Law Library occupies a lower level and spreads into the new George F. McMillen wing, completed this fall. The new wing spans the north roadway. Mudd, himself an attorney, was a national benefactor of legal education. The Freunds were St. Louis philanthropists.
Each year, the Washington University Alumni Association makes special awards to members of the faculty from a long list of nominees submitted by alumni, faculty, students, and other members of the University community. The awards are given "in recognition of those teachers who have shown unusual insight and responsiveness in their relationships with their students and who have demonstrated a genuine and continuing concern for education." The five teachers chosen to be honored at this year's Founders Day banquet were asked to set down in writing for this issue their concepts of teaching and the role of the teacher. Each teacher's response was different (David Gutsche, professor of chemistry, chose poetry to express his feelings), but each points up, we feel, that the quality of education at any educational institution depends basically on the quality of its teachers.
Morton E. Smith

Morton E. Smith is professor of ophthalmology and pathology and is director of the University's Ophthalmic Pathology Laboratory. He has lectured widely throughout the United States and has written numerous books and articles in various fields of ophthalmology. He is known and respected as an outstanding teacher by medical students and by interns and residents in his field.

Sir William Osler said that no man can teach successfully who is not at the same time a student. That statement could be said to be the essence of what I have derived by being a teacher of medical students and residents at Washington University. It has been a fantastic learning experience for me, and I can sincerely say that I have learned as much (or more) from the students and residents as they have learned from me.

The curriculum for teaching ophthalmology to medical students is but one example of how I have learned from them. Utilizing the students' suggestions for improvement over the years, our curriculum has developed into one which, according to most of the feedback from the students, is quite successful in accomplishing our goals.

I have also learned that a teacher must keep his or her perspective, i.e., set up specific goals and try to accomplish those goals in the most efficient and enjoyable manner possible. One can easily fall into certain traps, e.g., discussing one's own research projects when the time or place is inappropriate. Another trap is the use of audio-visual self-instruction units, which are often used by some teachers as a substitute rather than a supplement. A little time spent merely listening to the students express their goals and frustrations will often keep a teacher on the right track.

It is said that students learn when there is enthusiasm in the teacher. That is a two-way street. It is the refreshing honesty of the students that has kept me stimulated and enthusiastic about my work. I believe I have kept up with some of the latest developments in medicine outside of my own field as much from the exchange of information between the students and myself as from other means, such as conferences or journal reading.

I don't believe that good teaching in a medical school really differs much from teaching at any other level. The basic techniques and the proper learning environment are the same. Not all teachers, however, have the opportunity for versatility that I have teaching in a medical school; an opportunity which I appreciate. There are didactic lectures to large groups of 120 or more in the sophomore year. Smaller group sessions of about eight students comprise the junior-year curriculum. The one-to-one contact with the senior student or resident is, as most teachers know, even more stimulating, especially because we are working together on the nitty-gritty of actual patient management or a particular research project.

Finally, I am grateful for the opportunity to be able to be with students and residents, to teach and to learn. The Founder's Day Faculty Award is something I will cherish; but I will also cherish those times when students and residents have come by my office just before leaving this medical center, poked their heads in the door, and said, "Thanks."
Teachers on Teaching

Ronald L. Carlson

Professor Carlson, who has been a practicing lawyer, a United States Commissioner, and associate dean of a law school, teaches evidence and trial technique at Washington University. His two books on evidence and on criminal justice have been adopted as texts by many universities and cited by federal courts.

Writer Anthony Burgess commented that meeting students at American universities was particularly pleasurable because “they’re sharp and they’re anxious to hear people talk.” That terse comment summarizes much of the special satisfaction of teaching students at Washington University. A professor knows that in an otherwise ordinary day, the frequent frustrations of a faculty meeting or the tedium of office conferences will be broken by meeting the stimulating and thrilling challenge of the classroom. For me, such an encounter could involve Socratic interchange on a new Supreme Court case or a student trial demonstration. If the latter, I might well find myself serving in the role of the opposing attorney (an enjoyable occupation) or, in another case, I may be suddenly drafted by the students as the surprised and somewhat less willing defendant. Whatever the setting, the classroom has great potential for mutual stimulation, learning, and even a little fun. In trying to make the most of each of these possibilities, the effort is made worthwhile by those special young people who, in the description of writer Burgess, are “sharp and anxious to hear people talk.”

It has been said that a teacher affects eternity, that the teacher can never tell where his influence stops. How decisively this was brought home to me when I read Joseph Simeone’s memorial statement to a professor in a recent law review article. Judge Simeone summarized the impact of the professor’s life by saying that you could lose a man like the professor by your own death but not by his. What a special tribute! But such words are only deserved (as they were in the instance the Judge referred to) when a professor excels in scholarship as well as teaching. The vigorous pursuit of scholarly research and writing influences the depth of one’s teaching. In addition, the teacher is able to work for improvement and reform of his profession through his publications. There is much to be done these days. We live at a time when the administration of justice creaks under the heavy load of overcrowded dockets, when the Chief Justice of the U.S. Supreme Court calls for streamlined justice and more competent lawyers to try cases. Those in the teaching profession are uniquely situated to assist in this challenge by helping to develop skilled practitioners as well as by researching new ideas and fresh techniques.

These, then, are the real compensations of the teacher: The chance to work with gifted people, and to influence the life of his profession in a unique way. I am honored by the award this University has given me. One in my particular branch of law teaching can work to justify such an honor by instructing new lawyers in the special obligation of the trial advocate. Supreme Court Justice Tom Clark summarized that obligation: To assure a competent administration of justice so that no person suffers in the enforcement of legal rights for want of a skilled protector—a lawyer who is able, fearless, and incorruptible.
Robert Wykes

A member of the faculty since 1955, Robert Wykes, professor of music, has won an international reputation as a composer. He has written the scores for numerous film and television documentaries and his works have been performed by orchestras and choral groups throughout the world.

To me, as a composer, teaching is like making a series of sketches for an imagined work in order to gain a more clear vision of its potential reality. Meeting with a class or an individual, like making such sketches, is a means of coming to grips with a possibility yet unrealized. Our individual visions are each pre-shaped by mutually different cumulative experience. Our visions are focused and made real by coming together to share a common interest in music, its peculiarities as an art, and its demonstrable disciplines.

This particular process in the weather of human relationships is not neatly linear, tidy, efficient, or "guaranteed to work every time." It is also not inexpensive in price or time. As in making a piece of music, I am energized by this process and, in turn, that energy flows back into the relationship. If all goes well, if we together envision strongly enough, the "student," who is always a virtual colleague, finds that his or her capability to know, to work hard in a disciplined manner, and to envision a potential future is also energized in a way that makes a lasting difference in that person's life. When this happens I am delighted. I am even surprised!

If I listed the people with whom I have been privileged to work as a teacher it would be to say all I can about teaching, education, and the significance of Washington University, because teaching is about people working together within the highly particular circumstances of University life in order that they might share each other's talents, insights, and capabilities.
Raymond E. Callahan

A native St. Louisian and a Washington University alumnus, Professor Callahan has been a member of the faculty since 1952. A specialist in the history of education, he is the author of two books, including a widely acclaimed volume on the cult of efficiency in education. He currently serves as vice president of the American Educational Research Association.

As I look back on my teaching over the years, I keep thinking about the little girl in the nursery rhyme who, when she was good, she was very, very good and when she was bad, she was horrid. When I have a class that is responsive and hardworking, teaching is a joy. It is great when students get involved and pepper me with questions and stay after class to discuss some of the issues. And it feels good, when, at the end of the semester, students come by and tell me that they enjoyed the course and learned a great deal. On the other hand, I have had classes in which, no matter how hard I tried all semester, I could not move the students from their seeming state of lethargy and indifference. Although I have tried, I have been unable to explain this phenomenon, especially when the course is the same, the readings are the same, and I think I am the same, as in some of the “very, very good” classes.

These “horrid” classes have been very painful, and I have gone home in the evening in a deep state of melancholy, asking myself why I have chosen such a profession. On those bleak evenings, I usually take a drink and listen to a record I have of sad Irish music, which exactly matches my own mood at such times. Fortunately, in this last semester I have had two of the best, most responsive, classes I have ever had. I say fortunately partly because the experience has been so rewarding, but also because my record of sad Irish music has worn out and I have not been able to replace it.

The editors have asked me to write briefly about my philosophy of teaching. I think there are three basic elements: The first is a deep interest in my area of specialization, which is the history and philosophy of education; the second is hard work; and the third is a sensitivity to students. The research and writing on my major book, although arduous and exhausting, was a labor of love, and I continue to enjoy my research and writing. I hope and believe this interest has an effect on my classes. I have always worked hard at my teaching. Most of my classes are scheduled in mid or late afternoon and meet for two-and-a-half hours one day a week. I begin preparing the night before. I wake up thinking about the class, and I spend the rest of the morning and early afternoon going through my material and thinking about it. I seldom do any writing on the day I have a class, and I avoid committee meetings or any other activity which would distract me. Finally, I do my best to be sensitive to my students. I try to get acquainted with each one. I try to listen to their questions, and I try to answer them in a serious and thoughtful way. If a student has a problem, I help if I can—sometimes by making special arrangements and bending the rules. If a student has tried to take advantage of me, I do not hesitate to let him, or her, know my thoughts on the subject, but I try never to act in a punitive way or to embarrass students or humiliate them. I try to treat them as I was treated by my great teachers, Dietrich Gerhard and George S. Counts.

What success I have had as a teacher, I think, has been due partly to the excellent training I received and partly to my colleagues here in the Graduate Institute of Education. They are a lively group, interested in ideas and deeply committed to the study of education and to good teaching. I know that much of their knowledge and their enthusiasm has rubbed off on me and has been reflected in my teaching. Finally, some of whatever success I have had is due to a sense of humor (sometimes referred to as “ham”) which I inherited from my father. I freely admit to an effort to try to entertain my students while I try to teach them. I don’t believe classrooms should be dull or grim places—they should be bright and lively.
Teachers on Teaching

David Gutsche

Professor Gutsche has been a member of the Washington University faculty for nearly three decades. The author of more than seventy-five papers and three books in his field, he is a leader of the St. Louis section of the American Chemical Society. He is an excellent cellist and, as his contribution shows, not only an organic but a poetic chemist.

Why do teachers teach and persevere? Wherein lies reward for ceaseless toil? For all who've taught, the answer's crystal clear—It's students, whose minds provide the fertile soil In which to plant ideas, then watch them grow—Slowly sometimes, in halting limpid mode With maturation so adagio That Job-like patience, carefully bestowed, Is what the teacher needs, lest restive acts Stunt growth and leave, withering on the vine, The half-ripe fruit whose ultimate loss subtracts From man's collective brain, both mine and thine. Quickly other times, in lively vaulting fashion With pace so brisk to take one's breath away, Requiring zeal and pedagogical passion To feed it well, least it also go astray And, through lack of proper care, cease to thrive, Like its partner, withering on the vine—Another half-ripe fruit, failing to survive, Subtracting from experience, both thine and mine. Forbearance for the slow, then, and for the bright Sufficient challenge to keep alive cognition Must be provided to feed each appetite And nurture all ideas to full fruition.

If this be done, success is guaranteed, For sustenance will be there for the masses Between the slow and bright, enough to feed The average student, academe's middle classes. So, to plant ideas and bring them to maturity In all kinds of minds, from opaque to ultra clear Is what provides reward and true security. It's why teachers teach and persevere.

Having tried for one score years and eight To heed the precepts in the lines just writ, Having strived to soundly educate A host of students, but oft unable to transmit Inchoate notions to young and pliant minds, Failing frequently in the lecture hall's arena To find the word that right and aptly combines Thought and phrase in tight and scholarly catena, To now receive the Alumni's flattering Citation Is surprise indeed, seeming to prove, I'd say, That given a long enough time for incubation, One's debits are forgot, and magnanimity carries the day.
Laclede's Landing

"The buildings, built in Gothic and late nineteenth-century architectural styles, possess an extremely interesting townscape quality. The access is gained through narrow, enclosed streets which slope toward the river edge. The sequential motion through the streets creates a visual drama which is unique of this area. The Eads Bridge and the Gateway Arch have a very dominating effect on this area, making it a very important location for commercial development on the riverfront."

While four Washington University graduate students in architecture studied Laclede’s Landing, an area of downtown St. Louis immediately north of the Gateway Arch, as a part of their larger riverfront development thesis, the area also fell under the impeccable eye of Herb Weitman’s camera. The Weitman photographs of the buildings, constructed around 1880, amply illustrate why the students recommend that as many as possible of the structures be saved. They see the area as a vital link between the central business district and the river itself.

Authors of the new study were four foreign students: Jiterdra Ramanlal Chokshi and Satyakam Garg from India; Thomas Tung Ming Ma, a Canadian of Chinese ancestry, and Shon Chaisae Than from Malaysia. The joint thesis was supervised by Professor Donald Royse.
Laclede's Landing is the site of the original village of St. Louis. It grew up as homes surrounding the fur trading post established by Pierre Laclede in 1764. Typical of today's buildings is one owned by Washington University since 1885. According to one history, it was owned by Henry Shaw who that year "deeded to the University improved real estate yielding an annual revenue of over $5,000 to endow a school of botany."

The five-story warehouse has been continuously occupied, although in lean downtown years, rental income had to be supplemented from other Shaw benefactions to make up the income stipulated by Shaw. But with current interest, 612 North Second Street may yet become as fashionable an address as any in the city. Its steady income is assured by a long-term lease with a developer. Among its occupants today are an art gallery, which has shown many works of University faculty members; a design studio, and a bar and restaurant. The entire area is to be revitalized by the privately owned Laclede's Landing Redevelopment Corporation.
The Western Approaches

As long as we look forward, all seems free,
Uncertain, subject to the Laws of Chance,
Though strange that chance should lie subject to laws,
But looking back on life it is as if
Our Book of Changes never let us change.

Stories already told a time ago
Were waiting for us down the road, our lives
But filled them out; and dreams about the past
Show us the world is post meridian
With little future left to dream about.

Old stories none but scholars seem to tell
Among us any more, they hide the ways,
Old tales less comprehensible than life
Whence nonetheless we know the things we do
And do the things they say the fathers did.

When I was young I flew past Skerryvore
Where the Nine Maidens still grind Hamlet's meal,
The salt and granite grain of bitter earth,
But knew it not for twenty years and more.
My chances past their changes now, I know

How a long life grows ghostly towards the close
As any man dissolves in Everyman
Of whom the story, as it always did, begins
In a far country, once upon a time,
There lived a certain man and he had three sons...
The Thought of Trees

It is a common fancy that trees are somehow conscious and stand as the silent or whispering witnesses of the ways in which we bustle through the world. But it is a truth of poetical imagination that the trees are guardians and sponsoring godfathers of a great part of thought. Not merely that various traditions have looked on trees as sacred figures of the cosmos, as the source of moral distinctions, as bearing all golden things, the apples, the bough, the fleece; but also that trees, more than we generally allow, have formed our view of the creation and nature of things, and, ambiguously responsible for these, the mind's image of its own process. This we are told by metaphors: a family tree, the root of the matter, a trunkline, a branch of the subject, and so on.

Trees appear as the formative image behind much thought brought to the critical point of paradox—

Where order in variety we see,
And where, though all things differ, all agree,
as Pope politely says of Windsor Forest. That trees, the largest of living things, are initially contained in tiny seeds, is already a spectacularly visible legend of the mysteries of generation and death. The tree, rooted in earth and flowering in heaven, intimates obscure and powerful reflexive propositions about the two realms; that root and top strangely mirror one another deepens and complicates the human analogy. The relation of single trunk and manifold branches forms the pattern for meditation on the one and the many, cause and effect, generality and particulars; while the movement in three stages, from many roots through one trunk to many branches, is supremely the image of historical process. The tree's relation with its leaves translates the paradigm into temporal terms, speaking of individual, generation, race, of identity continuous in change, of mortal endurance threaded through mortal evanescence, of times and a time.

Trees imagine life, and our imaginations follow as they may. The growth of a tree, its synchronous living and dying, from soft shoot to implacably hard (still growing) wood; the vast liquid transactions of capillarity within the solid form; the hard bark which nevertheless, as in the elm, reminds of water in its twisting flow; the enduring image of fluid life recorded in the rivery grain of boards (a mystical saying:—"Split the stick and there is Jesus"); the generalized simplicity composed of multitudinous complexity, generalized symmetry from the chaotic scrawl of upper branches; the simultaneity of freedom and order, richness and elegance, chance and destiny—these are some of the imaginings of the trees, which out of the earth and the air have dreamed so much of the human mind.

As architectural forms reflect their material origins, the first columns having been trees, so also with the mind. And so perhaps with its conclusions? "I shall be like that tree," Swift said to Edward Young, "I shall die first at the top." Since the eighteenth century, anyhow, when cathedrals began to remind people of forests and forests of cathedrals, it has come to seem sometimes that the mind acts in a drama staged with so high a regard for realism that the trees on the scene are carpentered at considerable cost out of real wood. Still, dryads and dendrones, the trees are within us, having their quiet irrefutable say about what we are and may become; how they are one of the shapes of our Protean nature, Melville in a single line expresses best—

The hemlock shakes in the rafter, the oak in the driving keel
—and it is the founding tenet of poetical imagination that such images are inexhaustibly speaking, they call to compelling, strange analogies all thought that flowers in its fact.
A Gallery
Of Trustee Profiles

Paul A. Freund

Paul A. Freund has a mellifluous voice and a judicial manner which betit a man considered one of this country’s most distinguished authorities on constitutional law. Quietly dignified and seemingly imperturbable, he has the assured confidence of one whose opinions are sought after by others—many of them people in positions of power.

In 1939, he was appointed to the Harvard Law School Faculty, where he is now Carl M. Loeb University Professor. This semester, Professor Freund is on leave which, he hopes, will give him more time to continue work on the monumental effort that has claimed much of his attention for over twenty years—The Oliver Wendell Holmes Devise History of the United States Supreme Court. As editor of this project, made possible by a $250,000 bequest from the late Mr. Justice Holmes, Professor Freund has supervised the publication of three volumes in this definitive series of eleven and is writing the last volume. When asked when he expected to complete it, he answered with good humor, “I plead the Fifth Amendment.”

A logical choice for such a scholarly tour de force, Professor Freund, who earned two law degrees from Harvard, has been closely associated with a handful of Supreme Court justices over the years. He did a year of postgraduate work under Felix Frankfurter, later named to the Supreme Court by President Franklin D. Roosevelt, and then served for some twelve months (1932-33) as Mr. Justice Brandeis’s law clerk. During the late thirties, he was an assistant to Solicitor General Stanley Reed, who, in turn, was also named to the Court by FDR. Professor Freund recently served on a commission appointed by Chief Justice Warren Burger, which had the task of determining if the caseload of the Court prevents it from discharging its responsibilities effectively.

Freund’s comfortable but unpretentious office in Langdell Hall on the Harvard University campus gives every evidence that its occupant is an extremely busy man. Great drifts of papers clutter his desk and table, books are everywhere, and on the floor in a large grey heap are huge volumes of The New York Times, scavenged from Harvard’s library when it cast them out for microfilmed copies of the newspaper.

Professor Freund writes with style and elegance. He majored in English literature at Washington University and considered teaching the subject in college after graduation in 1928. The erudite and meticulously composed paper on “The Great Disorder of Speech,” which he delivered last April in Washington, D.C., when serving as Jefferson Lecturer in the Humanities, was recently published in The American Scholar. He was the fourth invited Jefferson lecturer sponsored by the National Endowment for the Humanities. His predecessors were the late Lionel Trilling, author and educator; Erik Erikson, the psychoanalyst; and Robert Penn Warren, the novelist and poet.

This spring he has been invited to give another important paper in Sydney, Australia. Professor Freund will be the guest there of an Australian-American Foundation which is having a Bicentennial celebration in honor of the United States. His theme will have to do with the origins and growth of the idea of liberty and equality under the law.

“The Bicentennial year is very hard on professors of constitutional law,” Professor Freund said with a smile. Every organization seems to look to professors of constitutional law (at least those of us at Harvard) to contribute to their special Bicentennial events. Professor Freund’s addresses and papers reflect his catholic tastes, originality of thought, and perceptive vision. A Shakespearian buff, a devotee of modern poetry, a football fan (he prefers the college brand because it’s more fun), he peppers his manuscripts with references to people as disparate as Paul Valery, Wallace Stevens, Governor Huey Long, Dorothy Parker, and the men he calls “the great English secular trinity of Johns: Milton, Locke, and Mill.”

But, he leaves no doubt that teaching is his great commitment. Asked in 1960 to serve as Solicitor General by President John F. Kennedy, he declined because he confided, “I’m not one of those who believes in being an in and outer—moving back and forth between teaching and government. It’s true that shortly after I accepted my appointment at Harvard in 1939, I was in Washington, D.C., in the Solicitor General’s office again, but those were war years when the university was almost shut down. You’re somewhat more master of your fate as a teacher, although teaching nowadays is not an ivory tower profession.”

Professor Freund served as Pitt Professor of American History and Institutions at Cambridge University in England in 1957 and ’58 (his colleague Archibald Cox occupied this chair last year). His other honors are numerous and impressive: sixteen honorary degrees, including a Doctor of Laws degree from Washington University in 1956; fellow and past president of the American Academy of Arts and Letters, 1964-67; and current chairman of the Harvard Society of Fellows.

Professor Freund, who has been on the University Board of Trustees for fourteen years, is now an emeritus member. He continues to serve on the Educational Policy Committee.
In 1952, during the Korean conflict, Lt. Comdr. Hadley Griffin, as executive officer of the destroyer USS Black, welcomed aboard a young medical officer who was to share his quarters. The young medical officer was Lt. (j.g.) William H. Danforth. Dr. Danforth, now Chancellor of Washington University, and Hadley Griffin, now president and chairman of the board of the Brown Group and a University trustee, began a lifelong friendship aboard the USS Black.

It was during Chancellor Eliot's administration, however, that Griffin was asked, in 1967, to join the University board. He had met the chancellor when he asked Eliot to speak at commencement exercises of Country Day School, where Griffin was president of the board. Working with both chancellors, Hadley Griffin has been a concerned, involved, and hardworking member of the Washington University board.

Hadley Griffin was born in Edwardsville, Illinois. He graduated from University City High School, received the A.B. degree in 1940 from Williams College, and then returned to his home base to enroll in the Washington University School of Law. He started law school in 1940 but did not graduate until 1947 because he spent from 1941 to 1945 in the Navy, on destroyer duty first in the Atlantic and then in the Pacific.

After law school, Griffin joined Wohl Shoe Company as counsel and had moved up to assistant secretary-treasurer when he was recalled to the Navy after the Korean war broke out. He returned in 1953, but in the meantime Wohl had been acquired by Brown Shoe Company and Griffin reported to Brown headquarters in Clayton. He became secretary of Brown in 1954, a director in 1961, and a vice president in 1964. In 1966, he made executive vice president, and was named president of the firm in 1968. He became chairman of the board as well as president in 1972.

Hadley Griffin has become a leading figure in industry and a noted civic leader. He has been president of Civic Progress, a director of the Arts and Education Council and of the St. Louis Area Council of the Boy Scouts of America. A major interest is the St. Louis Symphony Society, of which he is vice president. When he was named the 1973 Man of the Year by the St. Louis Globe-Democrat, great emphasis was placed on his outstanding record with the United Fund, as general campaign chairman in 1972 and president in 1973.

Throughout his career, Hadley Griffin has had a strong interest in education. In addition to his service on the Country Day board, he is an alumni trustee of Williams College. At Washington University, he has been an active board member and is currently serving on the board's nominating, development, and student affairs committees.

In discussing his role as a trustee, Griffin expresses his feeling that meeting with the students is the most interesting part of the job. "The most important function, however, of a trustee," he points out, "is the support of the University's policies and administration. The whole thing has to land somewhere, and where it lands is with the board.

"The Board of Trustees helps preserve continuity," he adds. "The present trustees are the people who happen to be on stage now, but they are carrying on the work of the board members who preceded them and are passing on their responsibilities to the trustees of the future."

Talking about the University to people of the community and throughout the country, Griffin emphasizes that "the University is a community of scholars united for the study and dissemination of ideas; it is not a vehicle for any individual's nor any company's point of view."

"People of the community," he goes on, "must be sophisticated enough to accept the study of things and of views that are not identical with their own. They have to understand that good teachers attempt to teach facts, not views; there is a huge difference between espousing causes and teaching."

"The whole future of private education is a difficult one," Griffin foresees, "that will require a very high degree of excellence to deserve and to obtain the private support that will be necessary to continue. Failure to achieve and maintain excellence in private education will result in the end of many institutions."

Speaking of Washington University, Hadley Griffin, as an alumnus, a trustee, and a civic leader, maintains, "The future of Washington University is bright and it is deserving of and is receiving the kind of support, both financially and in participation and leadership, to keep it bright. Washington University is being very well run. The administration has been bold in its financial planning, has greatly strengthened alumni support, and continues to merit and receive the support of the St. Louis business community."

About his old shipmate, Lt. (j.g.) Danforth, Griffin simply says, "The caliber of Washington University is constantly rising in response to Bill Danforth's challenge. Then he adds, "I am very proud of my association with Washington University and I enjoy it."
John W. Hanley

John W. Hanley, chairman of the board, president, and chief executive officer of Monsanto Company, has a reputation for getting right to the point. Anyone who has worked with him will tell you that, and this trait has even surfaced in the press: The St. Louis Post-Dispatch, for example, reported that following last April's annual meeting of Monsanto Company stockholders, Hanley sought out a critical stockholder to make a point in a direct and dramatic way. The stockholder, one Herbert Hoover, a farmer from Dodgeville, Wisconsin, had worried aloud during the formal meeting that Monsanto or other large international corporations could someday become involved in illegal or unethical practices affecting our country.

Immediately after the meeting adjourned, Hanley hurried down from the speakers' platform. The Post reported the incident as follows:

Hanley said, "Come with me, Mr. Hoover, I want to show you something about our management's objectives and what our ethical standards are." Hanley led Hoover to another building where the directors meet in a plush conference room. There he showed Hoover a number of large charts on which management's objectives are listed. One grouping was headed: We will conduct our business in a socially responsible manner.

The two men reviewed the objectives and Hoover apparently left the annual meeting feeling much less of an outsider. "Hoover obviously was a man who had some very basic convictions about the morality of American business," Hanley points out. "He had the courage to get up and express his concerns and raise questions about a company in which he has some ownership—Monsanto. I thought that he was entitled to a better answer than the annual meeting format allowed. The majority of stockholders at the meeting were Monsanto employees who are familiar with the way the company has conducted business over the years. Mr. Hoover could not have had this knowledge. The charts I showed him are living documents that we work with every week. They literally are our corporate objectives, not position papers someone drew up to gather dust in a closet. What our objectives spell out is that Monsanto employees should have the goal of not merely being within legal bounds in their transactions, but that they must be good citizens."

Hanley's administrative style is to encourage his own direct approach among his associates. ("I make three or four mistakes a day, so people around me have got to be open and candid. I need counsel and guidance.") At the same time, he insists on having clear, spelled-out company objectives that permit greater delegation of authority and hopefully more efficient business practices. It was a style that he learned at Procter & Gamble Company in Cincinnati, where he held many executive positions during a twenty-five-year period, rising to the executive vice presidency before joining Monsanto as its president in October, 1972. Living in one city for twenty-five years was a real change of pace.

"My father changed his business location on the average of once a year, so I saw quite a variety of schools and people as a child," Hanley said. "Being constantly placed in a strange environment, I learned that you have to put yourself out for other people or they're perfectly willing to let you stay in a corner. Maybe people will draw you out if you're an extraordinary being, which is something I never was and never will be." Hanley pointed out that he had almost as many different jobs at Procter & Gamble as different schools he attended as a child. "Every time I turned around, I found myself in a new and challenging job, one that was hard to get on top of. That was the policy at Procter & Gamble, which, incidentally, was recently chosen as one of the five best managed companies. " (He was referring to the annual rating by Dun's Review, which also named Monsanto in 1973 as one of the five best-managed companies in the nation, giving the company the top ranking in the area of corporate reorganization.)

A native of Parkersburg, West Virginia, Hanley received his B.S. degree in metallurgical engineering in 1942 from Pennsylvania State University. After naval service in World War II, he found that his training in metallurgy was badly outdated and decided on a career in marketing. When the company for which he'd been working before the war refused to let him go into sales until he could acquire more experience, he asked the company's president, E. J. Hanley (no relation) to write him a letter of recommendation for admission to the Harvard University Graduate School of Business Administration. "I had good undergraduate and service records, but so did everyone else," said Hanley. "I didn't think my chances for admission were outstanding. Thousands of people were applying. After I was admitted to Harvard, I learned that E. J. Hanley served on the admissions committee."

Hanley has been a trustee of Washington University since January of 1974. He serves as chairman of the trustees' public relations committee, a group which has been trying to define more clearly the University's special strengths and qualities. He believes that trustees should be working members of the University community. "When the committee's work comes to a close, I'll need to sit down with the Chancellor and Chairman of the Board to figure out whether there are other jobs to be done."

Hanley's business responsibilities currently keep him from accepting many outside activities. One of his main family projects has been to organize a photographic safari in East Africa for the Hanley children (now all young adults). Last year he and his wife, Mary Reel Hanley, found their trip observing African wildlife so rewarding that they felt it would be a good way for their five children to hold a reunion.
When W. Alfred Hayes was sixteen, he may not have known the meaning of the word “entrepreneur,” but he became one. He has been one since. That first enterprise, which was “buying” his high school yearbook, flourished because the young man combined a keen eye for opportunity, a dash of daring, and a fine business sense. These qualities Hayes has applied variously all of his life to the insurance business, actuarial services, a chemical company, an investment firm, advertising companies, several St. Louis clubs, civic ventures and, for the past ten years, Washington University.

He became a member of the Washington University Board of Trustees in 1966, served as chairman of a major division of the University’s Seventy by Seventy campaign, and has now accepted the presidency of the University’s William Greenleaf Eliot Society. “I love Washington University and I’d do anything for it,” he says with a sincerity that shows he bears no grudge that the University took advantage of him when he was a student. As he explains it: “At the end of my sophomore year, I leased the athletic field, the pool, and the gym from the University for the summer to run a boys' camp. I hired one of the coaches to be athletic director, so that I wouldn't lose my amateur sports standing, and sent out one small notice about a camp to teach 'good form' in all sports. On opening day, we were greeted by all expenses were paid, the coach and I split $6000 for that six weeks. The next year, the University decided to run a camp and hired me to direct it. I learned one important thing: get a contract.”

That sophomore summer experience and a love for sports led the young Hayes, who was then a law student, to believe that he would make a career of organizing and building a series of boys' camps. But recently married, in need of money, and looking to the future, he dropped the idea, quit school “because I knew that even top law graduates made only $75 a month,” entered the insurance business, and played professional football on the side. The team was the St. Louis Blues, and Hayes was its quarterback and coach, which earned him $75 a game.

When the Blues folded, Hayes went on to other things. After fifteen years in the insurance business, he organized the firm of W. Alfred Hayes and Company, employee benefit, actuarial, and business consultants. Today he remains chairman of the board of that firm, which specializes in providing actuarial services for cities, banks, large corporations, and “to WU free of charge.”

In 1947, Hayes organized Algonquin Chemical Company and, in the early 1950's, he and his partner, James E. Rarick, bought 180 acres in the name of that company determined to establish a championship quality golf course in west St. Louis County. “We felt that a quality country club and championship course would be a civic asset to St. Louis,” Hayes recalls. Together with other individuals, they organized Old Warson Country Club.

Twelve years later, Hayes put the same talents to use as a founder of the St. Louis Club in Clayton, and shortly thereafter, as a member of the University's board, he spearheaded the organization of the University's Faculty Conference Center and its facilities at Whittemore House. To finance the latter, he solicited charter memberships from many friends of the University. “That gave us the base we needed to put in first-class facilities using top consultants. Did you know that that kitchen is one of the most efficient food service facilities in the city?” Hayes's pride in this association and in other of his civic accomplishments is great. His office, overlooking the west end of Forest Park, contains photographs and other tokens of these, including mementos of the 1971 Ryder Cup Matches held at Old Warson.

His office also contains a bulletin board with snapshots of handsome young men and women—his grandchildren—and older adults. His family includes his wife, Dorothy; a son, W. Alfred Hayes, Jr., and a daughter, D. Marilyn Hayes Burchfiel, a 1949 graduate of Washington University. His son attended W.U. for a year before transferring to the University of Virginia, and a granddaughter is now a graduate student in architecture here. The contacts with the younger generation through his grandchildren have made Hayes an understanding and useful member of the University Board’s student affairs committee. He is also a member of the real estate committee.

Hayes was born in Tennessee. His family moved to St. Louis when he was seven years old. “Both the city and the University have been very kind to me,” he reminisces. “I had a football scholarship to another school, but I got an appendicitis and could not fulfill it. I enrolled at Washington University on an academic scholarship, but I also played football and was a member of the track team. I broad jumped twenty-three feet, eight inches in 1927 for a school record. The University gave me the start that I needed and I am grateful.”

“Don’t write one of those poor-boy-makes-good stories, but I was a poor boy, very poor. That’s why I was always looking for a way to make a little money and why I got the idea of asking to buy the Clayton High School Yearbook. The yearbook always ran in the red, so my offer to guarantee its production at no cost was good for the administration, and I was convinced I could make the proposition pay. I did. Actually I just went back to the same advertisers, but I doubled the advertising price.”
POSTSCRIPT TO
"NORTHSIDE STORY"

"NORTHSIDE STORY," this issue's cover article, is an attempt to give some idea of the changed appearance of the northern edge of the Hilltop campus. There have been many changes and much new building, both on the Hilltop and on the medical campus, but nowhere is the transformation so remarkable as that made over the past decade along the northern edge of the main campus.

The Washington University community has always been justly proud of its beautiful campus, with its red granite Academic Gothic buildings, arranged in series of grassy quadrangles, isolated and insulated from the noise and bustle of the city. Until recently, however, the northern border wasn't exactly the showplace of the campus. In the very early years, railroad tracks ran along the northern edge. (The tracks may not have added to the beauty of the campus, but they did have one advantage: visiting football teams could park their Pullman cars on a convenient siding near the stadium and use them as portable housing.)

The railroad tracks were replaced by the streetcar lines that bordered the campus on the north until the early 1960's. Until the end of World War II, the north side of campus consisted essentially of maintenance buildings, storage areas, access roads, and the University powerhouse, boasting the tallest Gothic smokestack in the world.

With the huge influx of students the GI Bill brought to the campus after the war, housing for the additional faculty required became critical. A large, U-shaped faculty apartment complex was built along Millbrook Boulevard, at the extreme western edge, just east of the KEtc educational television facilities.

The faculty apartments are still an attractive part of the campus, but in the era when the GI Bill boom was at its peak, they proved inadequate. Adjoining the apartments to the east, a cluster of small quonset hut dwellings was erected, mainly as residences for married graduate students. These quaint dwellings, which resembled something from the less affluent district of the Munchkin Country, were in use throughout the fifties. In fact, the last of the old quonset-hut cottages weren't demolished until the mid-sixties.

As a natural, if not inevitable, outgrowth of all this housing, a nursery school was begun in 1947 by a group of faculty and graduate student parents. This soon became The Nursery School, which is still very much a campus asset. It is housed in basement space in the faculty apartment complex, and its newly expanded and modernized outdoor play area lies just to the east. The school serves as a laboratory for graduate and undergraduate students enrolled in early childhood special education, instructional process, and pre-school primary courses offered through the University's Graduate Institute of Education.

One important University facility along the northern boundary has attracted little attention since it was installed in 1947, and that's because most of it is underground. The University's cyclotron went into operation in 1940 in an underground installation just west of the powerhouse. It played an important role in the Manhattan Project during the war, furnishing both scientific data and rare radioactive materials. It was completely modernized a few years ago and is still an extremely active and useful research tool.

When Fraternity Row was built in the 1920's, long before the faculty apartment complex was dreamed of, the houses backed on the northern edge of campus and the road ran in front. Deliveries could be made in the rear, but you could park your Blackhawk Stutz or Model A Ford right in front of your fraternity house. The Greek letter societies own the houses, but they lease the ground from the University. On January 26, new fifty-year leases were signed between the University and fraternities. The Hilltop campus has changed incredibly since the first leases were signed in 1925. It is interesting to speculate about what the campus will be like when the fraternity leases come up for renewal in the year 2025.

BRUCE MELIN, director of athletics, professor of physical education, and veteran trainer, will hang up one of his three hats at the end of this academic year. Because of the University's retirement rules, Bruce will be succeeded by Don McCright, head football coach, as director of athletics. He will continue in his roles as professor and trainer—roles he has fulfilled with distinction for twenty-six years now. One of the best known and respected athletic trainers in the country, Bruce Melin has earned equal respect as a teacher, specializing in prevention and care of athletic injuries, anatomy, physiology, and kinesiology.

Don McCright seems an excellent choice to succeed Bruce as athletic director. He has posted an excellent record as head coach of the Battling Bears, turning the team around and rekindling fan interest. Perhaps more important, in the ten years he has been on the staff, he has shown a remarkable ability to work with students and an understanding of, and commitment to, the University's athletic philosophy.
"Highway Robbery," a colorful mural ten feet high and 260 feet long on the northeast corner of the St. Louis Art Museum, was the winner of the Museum's $1500 award for the best "beautification" of temporary building construction erected during the major renovation of the Museum now underway. Winners were Mitchell Bring, BFA 73, and Alexandra Margolis, fine arts senior.